

2SD1915

Silicon NPN Epitaxial Planar Type

For low-frequency output amplification

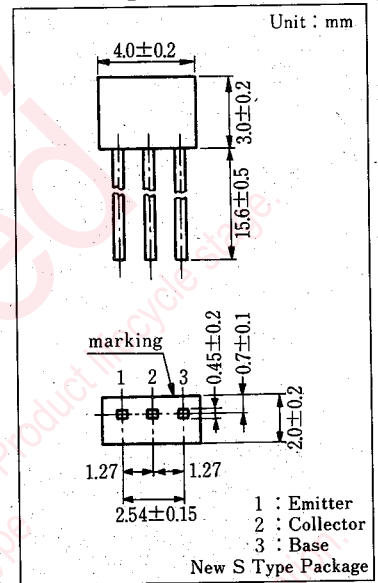
■ Features

- High emitter-base voltage V_{EBO}
- Large DC current gain h_{FE}
- Low ON resistance R_{on}
- Automatic insertion by radial taping possible

■ Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Item	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	25	V
Peak Collector Current	I_{CP}	500	mA
Collector Current	I_C	300	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

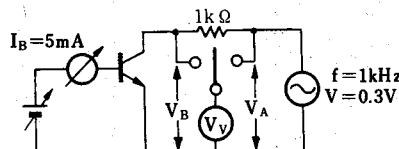
■ Package Dimensions



■ Electrical Characteristics ($T_a=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector-Emitter Voltage	V_{CEO}	$I_C=1\text{ mA}, I_B=0$	20			V
Collector Cutoff Current	I_{CBO}	$V_{CB}=50\text{ V}, I_E=0$			0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=25\text{ V}, I_C=0$			0.1	μA
DC Current Gain	h_{FE}^{*1}	$V_{CE}=2\text{ V}, I_C=4\text{ mA}$	500		2500	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=30\text{ mA}, I_B=3\text{ mA}$			0.1	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=2\text{ V}, I_C=4\text{ mA}$		0.6		V
Transition Frequency	f_T	$V_{CB}=6\text{ V}, I_E=-4\text{ mA}, f=200\text{ MHz}$		80		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{ V}, I_E=0, f=1\text{ MHz}$			7	pF
ON Resistance	R_{on}^{*2}			1.0		Ω

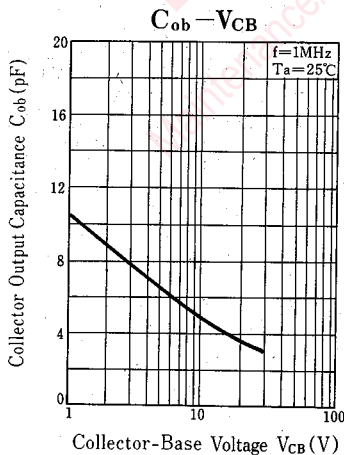
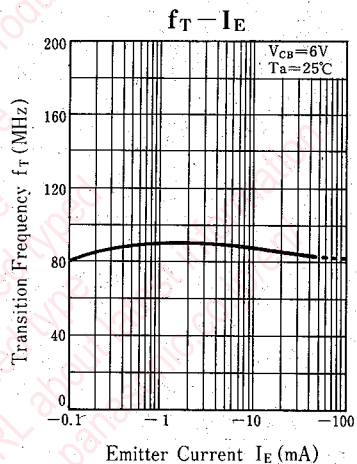
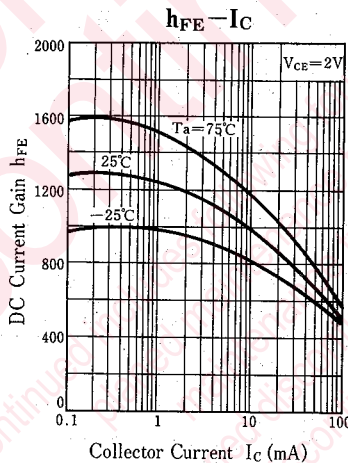
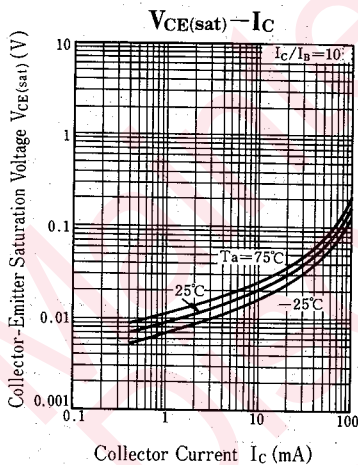
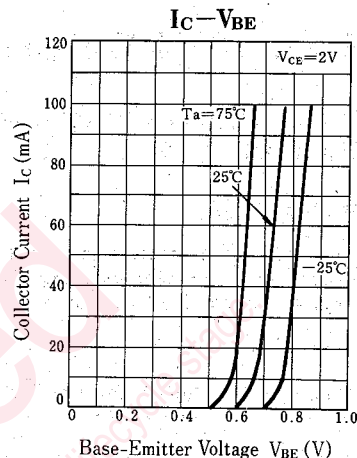
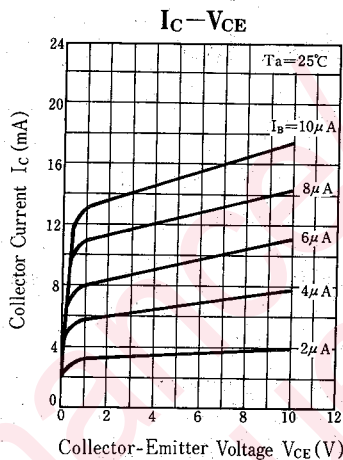
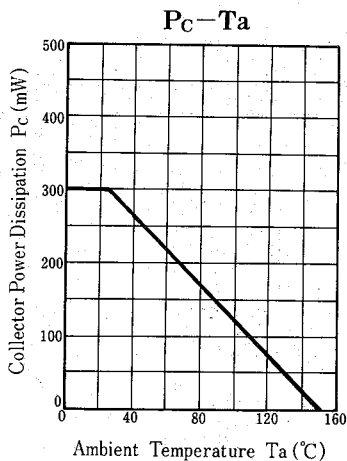
*2 R_{on} Measurement Circuit



$$R_{on} = \frac{V_B}{V_A - V_B} \times 1000 (\Omega)$$

*1 h_{FE} Ranking

Rank	S	T
h_{FE}	500 ~ 1500	800 ~ 2500



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